

REMARKS

The present application was filed on August 26, 2003 with claims 1-33. Claims 1-33 were allowed on September 7, 2007. On October 17, 2007, Applicants filed a Request for Continued Examination in order to submit an Information Disclosure Statement citing a single reference and Declaration of Prior Invention Under 37 C.F.R. § 1.131 sufficient to predate that reference.

In the outstanding final Office Action dated May 15, 2008, the Examiner rejected claims 1-33 under 35 U.S.C. §102(b) as being unpatentable over Bigus et al., “AutoTune: A Generic Agent for Automated Performance Tuning,” *Practical Application of Intelligent Agents and Multi Agent Technology*, 2000 (hereinafter Bigus).

In this response, Applicants respectfully traverse the §102 rejection. Applicants respectfully request reconsideration of the present application in view of the remarks below.

With regard to the §102 rejection, Applicants initially note that MPEP §2131 specifies that a given claim is anticipated “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,” citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, MPEP §2131 indicates that the cited reference must show the “identical invention . . . in as complete detail as is contained in the . . . claim,” citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 1 is directed to a method of constructing a model representative of a resource for use in managing a service associated with the resource, comprising the steps of associating a resource abstract model with the resource; wherein the resource abstract model is configured to automatically determine a set of resource metrics to be used to construct a model representative of the resource such that a reduced set of resource metrics is considered; and constructing the model representative of the resource based on the reduced set of resource metrics obtained in accordance with the resource abstract model. It should be noted that the present specification at page 9, lines 7-8, indicates that a resource abstract model “may be considered a computer readable description of one or more metrics.”

The Examiner contends that the steps recited above are taught by Bigus at page 5, last paragraph, and page 11, lines 6-10. Page 5, last paragraph, of Bigus recites, in relevant part:

Our starting point is the target's system model. As shown in Figure 3, the system model is an abstraction of the target that outputs service levels given inputs for workload, configuration, and settings of tuning controls. This model can be constructed using various learning approaches that enable different control algorithms to be employed. In our current prototype, the system model is obtained by training a neural network based on measured values of the controlled target over a wide range of workloads and tuning controls.

Page 11, lines 1-10, of Bigus, which includes the section cited by the Examiner, recite:

The core NeuralPredictionAgent . . . uses an AbleImport to read training and test data from text files, uses two AbleFilters, one to pre-process the data and one to post-process the data, and a back propagation neural network to perform the regression function. . . . The user need only specify the source data file (and a corresponding meta-data file). The neural prediction agent then scans the source data and automatically generates the scaling and transformation templates used by the AbleFilters to pre- and post- process the data going into and out of the neural network. Based on the number of inputs and output fields and their data representation, the neural network architecture is automatically configured.

The above-quoted portions of Bigus appear to be directed to constructing a system model, which is an abstraction of the target that outputs service levels given certain inputs, by training a neural network based on measured values of the controlled target. A neural prediction agent scans a user-specified source data file and automatically generates the scaling and transformation templates used to pre- and post- process the data going into and out of the neural network. Based on the number of inputs and output fields and their data representation, a neural network architecture is automatically configured.

Applicants thus respectfully submit that the above-quoted portions of Bigus fail to teach or suggest at least the limitation recited in claim 1 wherein a resource abstract model is configured to automatically determine a set of resource metrics to be used to construct a model representative of

the resource such that a reduced set of resource metrics is considered. Accordingly, Applicants assert that claim 1 is patentable over Bigus.

In the present Office Action at page 8, third and fourth paragraphs, the Examiner appears mischaracterize the above argument. Applicants are not arguing that Bigus fails to teach a limitation allegedly recited in claim 1 wherein a resource abstract model “may be considered a computer-readable description of one or more metrics.” Moreover, Applicants disagree with the Examiner’s contention that the above argument is an impermissible attempt to read limitations from the specification into the claims.

Rather, Applicants respectfully submit that Bigus fails to teach or suggest the limitations recited in claim 1 wherein a method of constructing a model representative of a resource for use in managing a service associated with the resource comprises the steps of associating a resource abstract model with the resource; wherein the resource abstract model is configured to automatically determine a set of resource metrics to be used to construct a model representative of the resource such that a reduced set of resource metrics is considered; and constructing the model representative of the resource based on the reduced set of resource metrics obtained in accordance with the resource abstract model.

Applicants note that, where a definition is provided by the applicant for a term, either explicitly or by implication (i.e., according to the usage of the term in the context in the specification), that definition will control interpretation of the term as it is used in the claim. See *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1583, 39 USPQ2d 1573, 1577 (Fed. Cir. 1996); see generally *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*).

Accordingly, Applicants are not attempting to read limitations from the specification into the claims, but rather are interpreting the claim in light of the specification. See, e.g., *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1572, 7 USPQ2d 1057, 1065 (Fed. Cir. 1988) (If “words that are used in the claims [are] defined in the specification,” these definitions from the specification “must be imported into the claims to give meaning to disputed terms.”)

In the present Office Action at page 8, last paragraph, the Examiner further argues that Bigus at page 9, section 3.2, line 1 (“In the ABLE framework, an agent is an autonomous software

component”) discloses the limitation allegedly argued by Applicants. Applicants respectfully submit this disclosure that an agent is autonomous software component fails to teach, or even suggest, the resource abstract model recited in claim 1, which, as noted above, is configured to automatically determine a set of resource metrics to be used to construct a model representative of the resource such that a reduced set of resource metrics is considered.

Independent claims 11, 20 and 27 include limitations similar to those of claim 1, and are therefore believed allowable for reasons similar to those described above with reference to claim 1.

Dependent claims 2-10, 12-19, 21-26 and 28-33 are believed patentable not only due to their respective dependence on claims 1, 11, 20 and 27, but also because such claims recite patentable subject matter in their own right.

In view of the above, Applicants believe that claims 1-33 are in condition for allowance, and respectfully request withdrawal of the §102 rejection.

Respectfully submitted,



William E. Lewis
Attorney for Applicant(s)
Reg. No. 39,274
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560
(516) 759-2946

Date: July 15, 2008